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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,473	02/04/2004	Hul-Chun Hsu	OP-092000372	1361
46103	7590	10/17/2006	EXAMINER	
HDSL 4331 STEVENS BATTLE LANE FAIRFAX, VA 22033			BOCHNA, DAVID	
			ART UNIT	PAPER NUMBER
			3679	

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/770,473	HSU, HUL-CHUN	
	Examiner.	Art Unit	
	David E. Bochna	3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 October 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 7-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Treusch et al.

In regard to claim 1, Treusch et al. discloses (fig. 10) a shrinkage-free sealing structure of a heat pipe, comprising a bulk body (see rectangular body in fig. 8) including a pressed open end with a first side (left leg of w-shaped end section) thereof being pressed towards the second side thereof (right leg of w-shaped end section), and a bent sidewall (perpendicular side wall connecting the w-shaped end section to the rectangular body) formed between the pressed open end and the bulk body; and

a double-layered structure (w-shaped end section) formed on the pressed open end, including a first and a second flattened portions (left and right leg of w-shape) connected to a third flattened portion (center section of w-shape) at two ends thereof by a bending portion respectively and the third flattened portion (center section) is bent into two portions (the inverted u-shape of the center section) to contact the first and the second flattened portions respectively (see fig. 8). Treusch et al. does not disclose that the body 20 is cylindrical, but Treusch et al. does disclose that the body could be made of other cross sectional shapes, such as an oval cross section (see col. 3, lines 16-17). It would be obvious to one of ordinary skill in the art to make

Art Unit: 3679

the body of Treusch et al. a cylindrical shape because a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

In regard to claim 3, wherein the double-layered structure has a narrow slit therein (see fig. 5).

In regard to claim 4, further comprising a covering portion sealing the narrow slit (see figs. 6-11).

In regard to claim 5, wherein the covering portion is formed by brazing, soldering or welding (see claims 3 and 5).

In regard to claim 6, wherein the double-layered structure has a W-shape cross-section (see fig. 8).

#### ***Allowable Subject Matter***

3. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

4. Applicant's arguments have been fully considered but they are not persuasive. Applicant argues that Treusch et al. does not disclose analogous prior art. The Examiner disagrees. Treusch et al. disclose a sealing end structure for a pipe. The intended use of the pipe is irrelevant. As both Treusch et al. and the present invention disclose similar structure on a pipe end, the Treusch et al. patent is deemed to be analogous to the disclosed invention.

Applicant argues that Treusch et al. does not disclose a pipe end form with structure

Art Unit: 3679

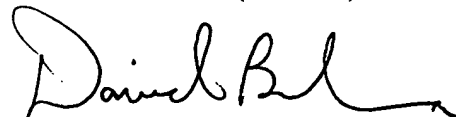
similar to that of the claimed invention. The Examiner disagrees. Please see the rejection above for a detailed description of how Treusch et al. discloses the same end form as that recited by the Applicant in claims 1 and 3-6.

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Bochna whose telephone number is (571) 272-7078. The examiner can normally be reached on 8-5:30 Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "David E. Bochna", with a stylized flourish at the end.

David E. Bochna  
Primary Examiner  
Art Unit 3679